



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/733,027

12/11/2003

Alexander V. Lubnin

20ICT033A

7489

37535 7590 09/20/2007

LEGAL DEPARTMENT
LUBRIZOL ADVANCED MATERIALS, INC
9911 BRECKSVILLE ROAD
CLEVELAND, OH 44141-3247

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1714

MAIL DATE

DELIVERY MODE

09/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/733,027

Applicant(s)

LUBNIN ET AL.

Examiner

Patrick D. Niland

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37, 61 and 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61 and 62 is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-37 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/2/07</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1714

1. The amendment of 7/2/07 has been entered. Claims 1-37 and 61-62 are pending.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-13 and 15-37 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5959003 Lo et al.

Lo discloses making polyurethane prepolymers which are NCO terminated as evidenced by their ability to be chain extended and the referenced free NCO groups and the common usage of “prepolymer” such that there are two different hydrophilicity prepolymers made separately from each other and the mixture thereof is dispersed in water so as to give core shell particles as described. “Together dispersed in water” of the abstract and “together dispersed into deionized water” of column 3, lines 24-25 and the fact that core shell structures form are taken as clearly indicating that the prepolymers are mixed together before dispersing them in water. See the abstract; column 2, lines 1-67, particularly 1-30 and 49-57 which encompasses the different acid numbers of the instant claims, more particularly lines 8-12; column 3, lines 1-67, particularly 6-32; column 4, lines 1-67; column 5, lines 1-65, particularly claims 1, 9, and 12; and column 6,

Art Unit: 1714

lines 1-63. Such particles are always non-uniform in size. The exemplified amounts seem to meet claims 10-12. The PTMEG falls within the scope of the instant claims 15-16 and 18.

Chain extension of the examples will give the limitation of the instant claim 21. The polyurethanes themselves are surfactants based on their HLBs which reads on the instant claims 22-23. The examples use catalyst of claim 24. The lower molecular weight prepolymers which are liquid by definition of viscosity average molecular weight are reactive diluents according to the instant claims 25-26 and the prepolymer is a "macromonomer" which is a monomer.

Ethylene diamine can give branching as can the reaction with water and NCO which gives the terminal amine group which reads on claim 28. The lower molecular weight prepolymer gives plasticizing by definition of viscosity average molecular weight. It is not seen that the core shell particles of the patentee do not also have the morphologies of the instant claims 33-37 and they are necessarily inherently expected to do so since they are otherwise the same mixtures as those of the instant claims.

Applicant's disagreement with the examiner's interpretation of "Together dispersed in water" and "together dispersed into deionized water" is noted however "together" implies they are mixed together and the examiner maintains the rejection therefore. The applicant's argument that "together" does not mean that they were not mixed together prior to dispersing them in water is unsupported by probative evidence and contradictory to the definition of "together". If they are added from separate vessels, they are not "together" and separate of the applicant's argument is the opposite of "together". The reference does not say add them from separate vessels. It says "together". The evidence the applicant argues is missing is inherent in "together". This rejection is therefore maintained.

Art Unit: 1714

5. Claims 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 61-62 are allowable over the prior art considered which does not teach the claimed method nor provide rationale to make other disclosed methods into the methods of these claims.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

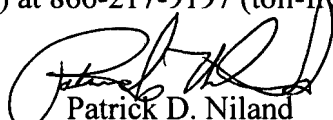
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick D. Niland
Primary Examiner
Art Unit 1714